

This listing of claims will replace the prior version of claims in the application:

**Listing of Claims:**

Claims 1 -24 canceled.

Claim 25 (original). A system for controlling a consist of at least a first locomotive having a first locomotive control and a second locomotive having a second locomotive control in response to operator input provided to a master control for the consist, said system comprising:

a communication link providing command information from the master control;

a first processing module for receiving the command information from the communication link and providing control information to the first locomotive control for controlling a power operating mode of the first locomotive;

a second processing module for receiving the command information from the communication link and providing control information to the second locomotive control for controlling a power operating mode of the second locomotive wherein, in at least one mode of operation, the power operating mode of the second locomotive is different as compared to the power operating mode of the first locomotive; and

wherein the power operating mode of the first and second locomotives is selected to optimize, braking of the first and second locomotives.

Claim 26 (original). The system of claim 25 further comprising a link to a GPS indicating a position of the consist and wherein the power operating mode is optimized as a function of the position of the consist as indicated by the GPS.

Claim 27 (original). The system of claim 25 wherein the power operating mode of the first and second locomotives is a performance parameter, wherein a performance profile of the first and second locomotives is known and wherein the first and second operating modes are selected to optimize the performance parameter as a function of the performance profile.

Claim 28 (original). The system of claim 25 wherein an operating parameter of a locomotive in which a crew member is riding is reduced as compared to an operating parameter of a locomotive in which a crew member is not riding.

Claim 29 (original). The system of claim 25 wherein the communication link providing command information from the master control is comprised of a wired communication facility.

Claim 30 (original). The system of claim 25 wherein the communication link providing command information from the master control is comprised of a wireless communication facility.

Claim 31 (original). A system for controlling a consist of at least a first locomotive having a first locomotive control and a second locomotive having a second locomotive control in response to operator input provided to a master control for the consist, said system comprising:

- a communication link providing command information from the master control;
- a first processing module for receiving the command information from the communication link and providing control information to the first locomotive control for controlling a power operating mode of the first locomotive;
- a second processing module for receiving the command information from the communication link and providing control information to the second locomotive control for controlling a power operating mode of the second locomotive wherein, in at least one mode of operation, the power operating mode of the second locomotive is different as compared to the power operating mode of the first locomotive; and

a link to a GPS indicating a position of the consist and wherein the power operating mode is optimized as a function of the position of the consist as indicated by the GPS.

Claim 32 (original). The system of claim 31 wherein the power operating mode of the first and second locomotives is selected to optimize braking capacity of the first and second locomotives.

Claim 33 (original). The system of claim 31 wherein the power operating mode of the first and second locomotives is a performance parameter, wherein a performance profile of the first and second locomotives is known and wherein the first and second operating modes are selected to optimize the performance parameter as a function of the performance profile.

Claim 34 (original). The system of claim 31 wherein an operating parameter of a locomotive in which a crew member is riding is reduced as compared to an operating parameter of a locomotive in which a crew member is not riding.

Claim 35 (original). The system of claim 31 wherein the communication link providing command information from the master control is comprised of a wired communication facility.

Claim 36 (original). The system of claim 31 wherein the communication link providing command information from the master control is comprised of a wireless communication facility.

Claim 37 (original). A system for controlling a consist of at least a first locomotive having a first locomotive control and a second locomotive having a second locomotive control in response to operator input provided to a master control for the consist, said system comprising:  
a communication link providing command information from the master control;

a first processing module for receiving the command information from the communication link and providing control information to the first locomotive control for controlling a power operating mode of the first locomotive;

a second processing module for receiving the command information from the communication link and providing control information to the second locomotive control for controlling a power operating mode of the second locomotive wherein, in at least one mode of operation, the power operating mode of the second locomotive is different as compared to the power operating mode of the first locomotive; and

wherein the power operating mode of the first and second locomotives is a performance parameter, wherein a performance profile of the first and second locomotives is known and wherein the first and second operating modes are selected to optimize the performance parameter as a function of the performance profile.

Claim 38 (original). The system of claim 37 wherein the power operating mode of the first and second locomotives is selected to optimize braking capacity of the first and second locomotives.

Claim 39 (original). The system of claim 37 further comprising a link to a GPS indicating a position of the consist and wherein the power operating mode is optimized as a function of the position of the consist as indicated by the GPS.

Claim 40 (original). The system of claim 37 wherein an operating parameter of a locomotive in which a crew member is riding is reduced as compared to an operating parameter of a locomotive in which a crew member is not riding.

Claim 41 (original). The system of claim 37 wherein the communication link providing command information from the master control is comprised of a wired communication facility.

Claim 42 (original). The system of claim 37 wherein the communication link providing command information from the master control is comprised of a wireless communication facility.

Claim 43 (original). A system for controlling a consist of at least a first locomotive having a first locomotive control and a second locomotive having a second locomotive control in response to operator input provided to a master control for the consist, said system comprising:

- a communication link providing command information from the master control;
- a first processing module for receiving the command information from the communication link and providing control information to the first locomotive control for controlling a power operating mode of the first locomotive;
- a second processing module for receiving the command information from the communication link and providing control information to the second locomotive control for controlling a power operating mode of the second locomotive wherein, in at least one mode of operation, the power operating mode of the second locomotive is different as compared to the power operating mode of the first locomotive; and

wherein an operating parameter of a locomotive in which a crew member is riding is reduced as compared to an operating parameter of a locomotive in which a crew member is not riding.

Claim 44 (original). The system of claim 43 wherein the power operating mode of the first and second locomotives is selected to optimize braking capacity of the first and second locomotives.

Claim 45 (original). The system of claim 43 further comprising a link to a GPS indicating a position of the consist and wherein the power operating mode is optimized as a function of the position of the consist as indicated by the GPS.

Claim 46 (original). The system of claim 43 wherein the power operating mode of the first and second locomotives is a performance parameter, wherein a performance profile of the first and second locomotives is known and wherein the first and second operating modes are selected to optimize the performance parameter as a function of the performance profile.

Claim 47 (original). The system of claim 43 wherein the communication link providing command information from the master control is comprised of a wired communication facility.

Claim 48 (original). The system of claim 43 wherein the communication link providing command information from the master control is comprised of a wireless communication facility.

Claim 49 (original). In a system for controlling in response to an operator a consist of at least first and second locomotives, wherein the system includes:

- an operator control for use by the operator to indicate a desired operating mode of the consist;

- a first controller for controlling a discrete power operating mode of the first locomotive;

- a second controller for controlling a discrete power operating mode of the second locomotive;

- a communication link for communicating the desired operating mode of the consist to the first and second controllers; further comprising:

- a first module between the operator control and the first control, the first module receiving the desired operating mode via the communication link and selectively providing a first modified operating mode to the first controller;

- a second module between the operator control and the second control, the second module receiving the desired operating mode via the communication link and selectively providing a second modified operating mode to the second controller;

wherein, in at least one mode of operation of the consist, the power operating mode of the first and second locomotives is different as compared to the desired operating mode of the consist; and

wherein the power operating mode of the first and second locomotives is selected to optimize braking capacity of the first and second locomotives.

Claim 50 (original). The system of claim 49 further comprising a link to a GPS indicating a position of the consist and wherein the power operating mode is optimized as a function of the position of the consist as indicated by the GPS.

Claim 51 (original). The system of claim 49 wherein the power operating mode of the first and second locomotives is a performance parameter, wherein a performance profile of the first and second locomotives is known and wherein the first and second operating modes are selected to optimize the performance parameter as a function of the performance profile.

Claim 52 (original). The system of claim 49 wherein an operating parameter of a locomotive in which a crew member is riding is reduced as compared to an operating parameter of a locomotive in which a crew member is not riding.

Claim 53 (original). The system of claim 49 wherein the communication link for communicating the desired operating mode of the consist to the first and second controllers is comprised of a wired communication facility.

Claim 54 (original). The system of claim 49 wherein the communication link for communicating the desired operating mode of the consist to the first and second controllers is comprised of a wireless communication facility.

Claim 55 (original). In a system for controlling in response to an operator a consist of at

least first and second locomotives, wherein the system includes:

- an operator control for use by the operator to indicate a desired operating mode of the consist;

- a first controller for controlling a discrete power operating mode of the first locomotive;

- a second controller for controlling a discrete power operating mode of the second locomotive;

- a communication link for communicating the desired operating mode of the consist to the first and second controllers; further comprising:

- a first module between the operator control and the first control, the first module receiving the desired operating mode via the communication link and selectively providing a first modified operating mode to the first controller;

- a second module between the operator control and the second control, the second module receiving the desired operating mode via the communication link and selectively providing a second modified operating mode to the second controller;

- a link to a GPS indicating a position of the consist and wherein the power operating mode is optimized as a function of the position of the consist as indicated by the GPS; and

- wherein, in at least one mode of operation of the consist, the power operating mode of the first and second locomotives is different as compared to the desired operating mode of the consist.

Claim 56 (original). The system of claim 55 wherein the power operating mode of the first and second locomotives is selected to optimize braking capacity of the first and second locomotives.

Claim 57 (original). The system of claim 55 wherein the power operating mode of the first and second locomotives is a performance parameter, wherein a performance profile of the first and second locomotives is known and wherein the first and second operating modes are selected to optimize the performance parameter as a function of the performance profile.



Claim 58 (original). The system of claim 55 wherein an operating parameter of a locomotive in which a crew member is riding is reduced as compared to an operating parameter of a locomotive in which a crew member is not riding.

Claim 59 (original). The system of claim 55 wherein the communication link for communicating the desired operating mode of the consist to the first and second controllers is comprised of a wired communication facility.

Claim 60 (original). The system of claim 55 wherein the communication link for communicating the desired operating mode of the consist to the first and second controllers is comprised of a wireless communication facility.

Claim 61 (original). In a system for controlling in response to an operator a consist of at least first and second locomotives, wherein the system includes:

- an operator control for use by the operator to indicate a desired operating mode of the consist;

- a first controller for controlling a discrete power operating mode of the first locomotive;

- a second controller for controlling a discrete power operating mode of the second locomotive;

- a communication link for communicating the desired operating mode of the consist to the first and second controllers; further comprising:

- a first module between the operator control and the first control, the first module receiving the desired operating mode via the communication link and selectively providing a first modified operating mode to the first controller;

- a second module between the operator control and the second control, the second module receiving the desired operating mode via the communication link and selectively providing a second modified operating mode to the second controller;

wherein, in at least one mode of operation of the consist, the power operating mode of the first and second locomotives is different as compared to the desired operating mode of the consist; and

wherein the power operating mode of the first and second locomotives is a performance parameter, wherein a performance profile of the first and second locomotives is known and wherein the first and second operating modes are selected to optimize the performance parameter as a function of the performance profile.

Claim 62 (original). The system of claim 61 wherein the power operating mode of the first and second locomotives is selected to optimize braking capacity of the first and second locomotives.

Claim 63 (original). The system of claim 61 further comprising a link to a GPS indicating a position of the consist and wherein the power operating mode is optimized as a function of the position of the consist as indicated by the GPS.

Claim 64 (original). The system of claim 61 wherein an operating parameter of a locomotive in which a crew member is riding is reduced as compared to an operating parameter of a locomotive in which a crew member is not riding.

Claim 65 (original). The system of claim 61 wherein the communication link for communicating the desired operating mode of the consist to the first and second controllers is comprised of a wired communication facility.

Claim 66 (original). The system of claim 61 wherein the communication link for communicating the desired operating mode of the consist to the first and second controllers is comprised of a wireless communication facility.